

NOLAN CREEK CED RETROFIT

FEBRUARY 4, 2005

INTRODUCTION

The Nolan Creek retrofit site is located on U.S. Highway 101 (US 101) between milepost (MP) 170.12 to 170.82, just south of Forks in Jefferson County. US 101 is a two-lane route and the only route around the Olympic Peninsula capable of carrying commercial traffic. It is of particular importance as a transit route for consumer goods, tourist traffic, and timber products.

THE CED PROBLEM

The retrofit site consisted of the Nolan Creek Bridge, which was sinking at the northern end. This was due to scour of the bridge foundation and was in danger of collapsing. The old bridge along with the riprap within the creek channel were constricting the creek and increasing scour. Bank instability and channel incision have been noted in the lower half-mile of Nolan Creek, likely due to the lack of LWD and the presence of the bridge.

FISH UTILIZATION & HABITAT AVAILABILITY

The Nolan Creek system supports bull trout, Chinook, chum, coho, and steelhead. Bull trout are currently listed as threatened under the federal Endangered Species Act.

Nolan Creek consist of pools and riffles and a streambed composed of gravel and rubble. Most of the stream is shaded by deciduous and coniferous vegetation. The main factors of disturbance within the drainage area are riparian roads and logging practices.

RETROFIT PROJECT

The new bridge was constructed approximately 65 feet upstream of the existing bridge. The roadway both north and south of the previous bridge was

realigned to the east. The new bridge is a clear span bridge, which does not have any piers or abutments within the ordinary high water mark of Nolan Creek. The riparian area and old roadway were revegetated. As additional mitigation measures, three logjams were constructed in Nolan Creek. The wood source consisted of the trees that were removed at a result of the project.



Figure. 1 Nolan Creek CED at high flow prior to construction of the new bridge.



Figure 2. Nolan Creek CED at low flow prior to construction of the new bridge.

(please see additional photos on page 2)



Figure 3. Nolan Creek CED retrofit after to construction of the new bridge.



Figure 4. Nolan Creek CED retrofit after to construction of the new bridge.